## CLAIMS

What is claimed is:

1. A method for driving an infusion pump motor, comprising the steps of:

determining a position in a pump cycle; and

determining the electrical current value for driving the infusion pump stepper motor in response, at least in part, to the position in the pump cycle.

2. The method of claim 1, wherein the position in the pump cycle and the electrical current value are related to each other in a relationship in a database.

3. The method of claim 1, further comprising the step of determining a flow rate, wherein the electrical current value is related to the position in the pump cycle and the flow rate.

4. The method of claim 3, wherein the position in the pump cycle, the flow rate and the current value are stored in a database, and wherein the position in the pump cycle and the flow rate are related to the electrical current value.

5. The method of claim 3, further comprising the step of modifying the electrical current value in response to temperature information.

6. The method of claim 3, further comprising the step of modifying the electrical current value in response to distal pressure information.

7. The method of claim 3, further comprising the step of modifying the electrical current value in response to an elapsed time value.

8. The method of claim 3, further comprising the step of modifying the electrical current value in response to the age of the infusion pump motor.

9. The method of claim 1, further comprising the step of half-stepping the infusion pump motor.

10. The method of claim 1, further comprising the step of microstepping the infusion pump motor.

11. A system comprising:

a sensor having an output;

a motor controller having an output responsive to the sensor output;

a current driver having an electrical current output responsive to the motor controller output;

a stepper motor responsive to the electrical current output.

12. The system of claim 11 wherein the stepper motor is contained within an infusion pump.

13. The system of claim 12 wherein the infusion pump provides for operation under battery power.

14. The system of claim 11 wherein the output of the sensor is responsive to temperature changes.

15. The system of claim 11 wherein the output of the sensor is responsive to backpressure changes.

16. The system of claim 11 wherein the output of the sensor is responsive to changes in the position of the stepper motor.

17. The system of claim 11 wherein the output of the motor controller is responsive to changes in the age of tubing used for administering medication.

18. The system of claim 11 wherein the output of the motor controller is responsive to changes in the age of the stepper motor.

19. The system of claim 11 further comprising a memory containing data wherein the electrical current output is responsive to the data and the sensor output.

20. The system of claim 19 wherein the controller and memory are within a microcontroller.

21. The system of claim 19 wherein the output of the sensor is responsive to temperature changes.

22. The system of claim 19 wherein the output of the sensor is responsive to backpressure changes.

23. The system of claim 19 wherein the output of the sensor is responsive to changes in the position of the stepper motor.

24. The system of claim 11 further comprising one or more additional sensors having outputs, wherein the output of the motor controller is responsive to the sensor outputs, and wherein the output of at least one of the sensors is responsive to the position of the stepper motor.

25. A system comprising:

a sensor having an output;

a motor controller having an output responsive to the sensor output;

a current driver having an electrical current output responsive to the motor controller output;

a stepper motor responsive to the electrical current output, the stepper motor contained within an infusion pump providing for operation under battery power.

26. The system of claim 25 wherein the output of the sensor is responsive to temperature changes.

27. The system of claim 25 wherein the output of the sensor is responsive to backpressure changes.

28. The system of claim 25 wherein the output of the sensor is responsive to changes in the position of the stepper motor.

29. The system of claim 25 wherein the output of the motor controller is responsive to changes in the age of tubing used for administering medication.

30. The system of claim 25 wherein the output of the motor controller is responsive to changes in the age of the stepper motor.

31. The system of claim 25 further comprising a memory containing data wherein the electrical current output is responsive to the data and the sensor output.

32. The system of claim 31 wherein the output of the sensor is responsive to temperature changes.

33. The system of claim 31 wherein the output of the sensor is responsive to backpressure changes.

34. The system of claim 31 wherein the output of the sensor is responsive to changes in the position of the stepper motor.